Message

From: Wayne Miller [Miller.Wayne@azdeq.gov]

Sent: 8/22/2016 11:18:06 PM

To: d'Almeida, Carolyn K. [dAlmeida.Carolyn@epa.gov]

Subject: 2016-8-22 - wafb - Thanks - AMEC-USAF doc dated 8-22-2016 response to ADEQ Apr 2016 and EPA May-June 2016

comments - RDRA addendum 2 WP ST012 - cj usaf

Thank you.

From: Steve Willis [mailto:steve@uxopro.com]
Sent: Monday, August 22, 2016 1:08 PM

To: d'Almeida, Carolyn K. <dAlmeida.Carolyn@epa.gov>; Wayne Miller <Miller.Wayne@azdeq.gov>

Subject: 2016-8-22 - wafb - OK - AMEC-USAF response to ADEQ Apr 2016 and EPA May-June 2016 comments - ST012 -

doc dated 8-22-2016 - cj usaf - sw

Thanks, got it

From: d'Almeida, Carolyn K. [mailto:dAlmeida.Carolyn@epa.gov]

Sent: Monday, August 22, 2016 1:07 PM

To: Wayne Miller **Cc:** Steve Willis

Subject: FW: ST012 weekly report thru August 12, 2016

In case you have difficulty with the download

From: d'Almeida, Carolyn K.

Sent: Monday, August 22, 2016 1:03 PM

To: Davis, Eva <<u>Davis.Eva@epa.gov</u>>; Herrera, Angeles <<u>Herrera.Angeles@epa.gov</u>>; Henning, Loren

<Henning.Loren@epa.gov>; Butler, Thomas <Butler.Thomas@epa.gov>; Levine, Herb <Levine.Herb@epa.gov>

Cc: Dan Pope <DPope@css-dynamac.com>; Brasaemle, Karla <KBrasaemle@TechLawInc.com>

Subject: RE: ST012 weekly report thru August 12, 2016

Just received responses to comments on the EBR workplan

From: Davis, Eva

Sent: Monday, August 22, 2016 12:47 PM

To: d'Almeida, Carolyn K. <dAlmeida.Carolyn@epa.gov>; Herrera, Angeles <Herrera.Angeles@epa.gov>; Henning, Loren

<Henning.Loren@epa.gov>; Butler, Thomas <Butler.Thomas@epa.gov>; Levine, Herb <Levine.Herb@epa.gov>

Cc: Dan Pope < DPope@css-dynamac.com >; Brasaemle, Karla < KBrasaemle@TechLawInc.com >

Subject: RE: ST012 weekly report thru August 12, 2016

As for areas where additional data is needed to define the LNAPL and dissolved phase zones:

In the UWBZ, the extent of the dissolved phase plume is not defined to the north between U-12 and U-02; and to the west between U-11 and U-12

In the UWBZ, the extent of LNAPL is not defined north of UWBZ-10 and UWBZ-11; west of CZ22/UWBZ35; east of UWBZ30 and UWBZ-21; or below UWBZ-34

In the LSZ, the extent of the dissolved phase plume (greater than 5 ug/l) is only defined by W-38 to the east and LSZ 47 to the south – essentially all of the perimeter of the site is not defined for the dissolved phase plume

In the LSZ, the extent of LNAPL is not defined east of LSZ-14 (north of LSZ-45); south of LSZ-46, LSZ-48, and W-11; west of W-11, LSZ-50, LSZ-49, and W-30; north of LSZ-51, LSZ-28, and LSZ-43; and below LSZ-50

The pre-SEE water table and gradient has not yet been re-established, but loss of containment will occur downgradient from LSZ-14, LSZ-44, and W-36 in the LSZ, and from UWBZ-21 and UWBZ-30 in the UWBZ – another goal for Wednesday's meeting should be to get them to do hydraulic containment.

From: d'Almeida, Carolyn K.

Sent: Monday, August 22, 2016 11:30 AM

To: Herrera, Angeles < Herrera. Angeles@epa.gov>; Henning, Loren < Henning. Loren@epa.gov>; Butler, Thomas

<Butler.Thomas@epa.gov>; Levine, Herb <Levine.Herb@epa.gov>

Cc: Davis, Eva <Davis.Eva@epa.gov>; Dan Pope <DPope@css-dynamac.com>; Brasaemle, Karla

<KBrasaemle@TechLawInc.com>

Subject: FW: ST012 weekly report thru August 12, 2016

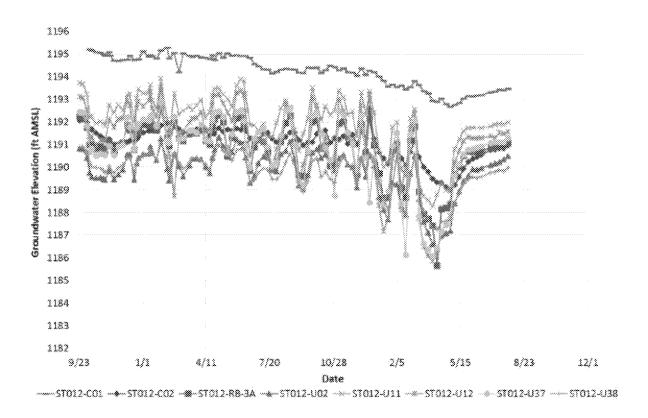
Forwarding to you the latest Weekly Report for ST-12; we should have Amecs presentation either later today or tomorrow. What you will notice:

- 1. Sect III Table A they are still removing thousands of pounds of hydrocarbons in vapor via SVE
- 2. Sect IV groundwater levels continue to rise, they have stopped reporting prior water levels though. From the last weekly report showing the entire series of water levels water levels are about a foot below the baseline established prior to SEE:

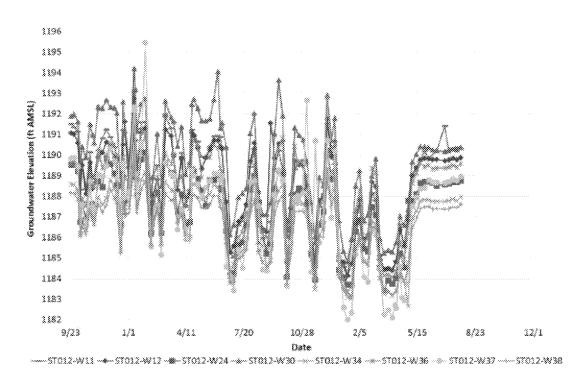
A. Perimeter groundwater elevation differences (measured in feet) adjusted for regional groundwater table increase

	7/8/2016		7/15/2016		7/22/2016		7/29/2016	
	Change from							
Monitoring Well	Baseline	Previous	Baseline	Previous	Baseline	Previous	Baseline	Previous
CZ/UWBZ Wells								
ST012-C01	-1.92	0.06	-1.84	0.11	-1.87	0.00	-181	0.09
ST012-C02	-1.26	0.06	-1.21	0.08	-1.21	0.03	-108	0.16
UWBZ Wells								
ST012-RB-3A	-1.36	0.06	-1.31	0.08	-1.32	0.02	-1.20	0.15
ST012-U02	-0.68	0.08	-0.59	0.12	-0.49	0.13	-0.34	0.18
ST012-U11	-1.86	0.09	-1.81	0.08	-1.83	0.01	-175	0.11
ST012-U12	-1.82	-0.06	-1.58	0.27	-1.64	-0.03	-154	0.13
ST012-U37	-1.33	0.06	-1.32	0.04	-1.32	0.03	-1.14	0.21
ST012-U38	-1.09	0.06	-1.02	0.10	-1.07	-0.02	-0.90	0.20
LSZ Wells								
ST012-W11	-1.30	-1.17	-1.21	0.12	-1.14	0.10	-1.24	-0.07
ST012-W12	-131	0.06	-1.24	0.10	-1.29	-0.02	-120	0.12
ST012-W24	-0.90	0.06	-0.82	0.11	-0.83	0.02	-0.76	0.10
ST012-W30	-1.67	0.08	-1.59	0.11	-1.63	-0.01	-1.53	0.13
ST012-W34	-0.78	0.09	-0.71	0.10	-0.78	-0.04	-0.60	0.21
ST012-W36	-0.19	0.08	-0.11	0.11	-0.19	-0.05	-0.04	0.18
ST012-W37	-1.13	0.10	-1.02	0.14	-1.09	-0.04	-0.88	0.24
ST012-W38	-0.76	0.04	-0.67	0.12	-0.71	-0.01	-0.54	0.20

CZ and UWBZ Groundwater Elevations



LSZ Groundwater Elevations



3. Sect V & VI – Well temperatures within the SEE treatment area and on perimeter are still near boiling temperature five months after cessation of steam injection.

4. Sect VII, Attachment 1 and final figures - LNAPL is rebounding in wells post SEE and being passively recovered. The last figure just prior to shut down of SEE showed all green dots in the Lower Saturated Zone, indicating no NAPL observed, however a sheen is now being observed, suggesting that SEE has not yet removed the LNAPL source even within the treatment area.

The site is still hot, LNAPL and dissolved contaminants now are much more mobile than they were prior to SEE, SVE is only removing volatalized contaminants in the vadose zone.

From: Smallbeck, Donald R. [mailto:Donald.Smallbeck@amecfw.com]

Sent: Friday, August 19, 2016 6:03 PM

To: JERRARD, CATHERINE V CIV USAF HAF AFCEC/CIBW < catherine.jerrard@us.af.mil >; (Geoffrey.Watkin@cn-bus.com)

< Geoffrey. Watkin@cn-bus.com>; d'Almeida, Carolyn K. < dAlmeida. Carolyn@epa.gov>; Wayne Miller

< Miller. Wayne@azdeg.gov>; Pearson, Stuart C. < Stuart. Pearson@amecfw.com>

Cc: Davis, Eva <Davis.Eva@epa.gov>; Brasaemle, Karla <KBrasaemle@TechLawInc.com>; Levine, Herb

<<u>Levine.Herb@epa.gov</u>>; <u>steve@uxopro.com</u>

Subject: ST012 weekly report thru August 12, 2016

BCT members

Please find attached for your information the preliminary weekly report describing ST012 activities thru August 12, 2016.

If you have any questions, call Cathy or myself.

D.R. Smallbeck Principal Program Manager Construction Remediation

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